

Guide 17-2

WELL-SITE SELECTION AND THE SURFACE OWNER

January 1996

Note: Contact phone numbers updated from print version November 1998

An oil or gas well on my land?

A company has approached you and wants to drill a well on your land. You and the company will be negotiating an agreement on a location for the well and access road, as well as compensation.

The first thing most landowners want to know is: "What are my rights?" and "What choices do I have?"
First, you have the right to be fully informed at each step of the process.

This booklet is intended to help you in your negotiations and to understand your rights and choices as a landowner. It also describes the obligations of the company under provincial legislation regarding the licensing and drilling of oil and gas wells.

This booklet answers the most common questions we receive at the EUB from landowners. If you have additional questions, or if you need more information, please contact:

Facilities Division
Alberta Energy and Utilities Board
640 - 5 Avenue SW
Calgary, Alberta
T2P 3G4
Telephone: (403) 297-4369*
Fax: (403) 297-4117

* To call toll-free, dial 310-0000 and ask the RITE operator to connect you to this number.

CONTENTS

PART 1: UNDERSTANDING YOUR RIGHTS

The right to survey
Mutual right to use land
The right to enter land

The right to information

PART 2: SELECTING A WELL SITE

Well spacing units and target areas

Geological considerations

Directional drilling

Land-use considerations

Domestic water wells

Other site restrictions

PART 3: WHAT HAPPENS DURING NEGOTIATIONS?

Case 1: Site agreed

Case 2: Site not agreed

-----The EUB public hearing process

Case 3: Compensation not agreed

PART 4: WHAT HAPPENS AFTER DRILLING?

USEFUL REFERENCES

OTHER AGENCIES TO HELP YOU

EUB CONTACTS AND AREA OFFICES

The Alberta Energy and Utilities Board (EUB) is responsible for the orderly and efficient development of Alberta's energy resources and ensuring that Albertans receive safe and efficient utility service at rates that are just and reasonable. The Board was formed in February 1995 through the amalgamation of the Energy Resources Conservation Board and the Public Utilities Board.

PART 1: Understanding Your Rights

The right to survey on your land

A company may enter your land to survey

One of the first steps in the well site selection process is a survey. The company needs a survey to identify the exact location of the well and the surface area required. Under the Alberta Surveys Act, the surveyor has the right to enter your property to survey after making a reasonable attempt to notify you. It is common practice - and common courtesy - for a company representative to call on you before surveying. The purpose of the visit will be to advise you of the approximate well and road location. The company is responsible for the cost of any damages caused by the survey.

Mutual right to use land

Surface owners and mineral owners share the right to use land

For any parcel of land in Alberta, there are two titles and two sets of rights. The surface title gives you ownership of the surface of the land and the right to work it. The mineral title gives the company or person who owns the minerals under that land the right to explore for oil and gas. The mineral owner needs access to the land surface to drill and produce oil and gas.

Two important conditions apply to the company's right to explore. First, drilling and production activity must be done in a way that is environmentally and technically acceptable. Second, a company must operate in ways that cause the least possible interference with your use of the land.

The right to enter your land

The company has the right to enter land to explore for minerals

Under common law, a mineral owner has the right to enter upon land to work and remove the minerals. However, the company must have approvals in place before entry onto the land. Normally this would include a surface lease from you and a drilling licence from the EUB.

If you and the company are unable to agree on a surface lease, the company must still obtain a drilling licence from the EUB and then a right-of-entry order from the Surface Rights Board (SRB). The right-of-entry order gives the company the authority to enter your land to drill the well. If the company proposes to drill an additional well on an existing lease, the company must still have your approval and deal with any concerns you may have about the extra well.

The right to information

Under EUB regulations and guidelines, the company must provide information you need to fully understand what is being proposed for your land. If you are concerned about surface impacts, the company should give you details about how it chose the well site and access road location. The company should also tell you what to expect in terms of equipment and operations during the production phase of the well.

If you have concerns or questions about drilling or production operations, do not hesitate to raise them. The company should be prepared to answer your questions in writing. Some questions to consider are:

- Where exactly will the well be located?
- How much surface area is required?

- What other locations are possible if I don't like the company's preferred site?
- Are there any constraints or restrictions on relocating the site?
- What access road route is proposed?
- When will the operation start and finish?
- What construction will be required before drilling starts?
- How will topsoil be conserved?
- How will weeds be controlled during drilling and production phases?
- How and when will the site be cleaned up after drilling is completed?
- If no oil or gas is found and the well is abandoned, what surface reclamation will be carried out? When?
- If the well is a producer, what surface equipment may be required? Where will it be located on the lease? Will these facilities be temporary or permanent?
- Are there plans to consolidate production facilities?
- Are there plans to expand the site?
- Are there plans to conserve solution gas? Where? When? (Solution gas is natural gas produced in association with oil.)
- Will a power line be needed? Will the power line be overhead or underground?
- How much noise will there be during drilling and production? What are the alternatives to reduce noise levels?
- What safety precautions are there for drilling and production operations?
- Will there be any land-use or setback restrictions? (A setback is the minimum distance which must be maintained between an energy facility and other surface developments.)
- Will oil be trucked or pipelined from the well?
- Will the well encounter hydrogen sulphide (sour gas)? If so, what emergency procedures are in place?

You may wish to pursue these or any other questions in greater detail. You are entitled to have the company answer fully.

If you are not getting answers or need information about regulations that apply to oil and gas wells, please contact the EUB. Use the government's RITE telephone system free of charge, or call collect. The phone numbers are listed at the back of this pamphlet.

PART 2: Selecting a Well Site

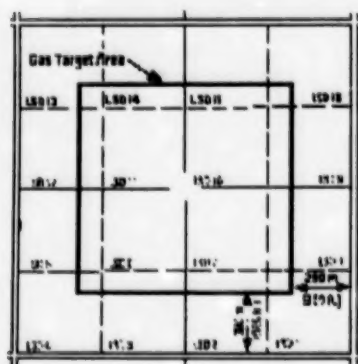
In selecting a well site, the company considers subsurface geology, land surface conditions, current and potential land use, environmental sensitivity, and reclamation.

Well spacing units and target areas

Well spacing regulations can affect the location of a well

The subsurface location for a well is subject to spacing units and target areas imposed by the EUB. These requirements are designed to ensure efficient recovery of oil and gas and to protect the rights of adjacent mineral owners.

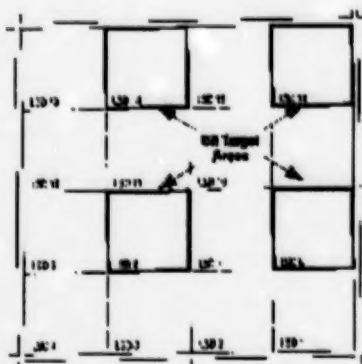
The spacing unit for gas wells in Alberta is normally one well per section of land. Inside the spacing unit is a target area where the bottom of the well should end. The **gas target area** is the centre 100 hectares (250 acres) of the section, as shown in the diagram below.



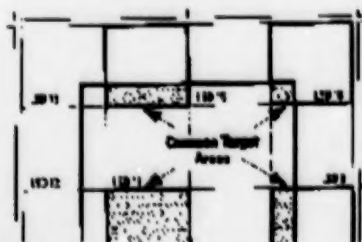
Keep in mind that the target area dictates the subsurface location for a well, not the surface location.

The spacing unit for oil wells in Alberta is normally one well per quarter section of land.

The **oil target area** is the northeastern 16 hectares (40 acres) of the quarter section, as shown in the diagram below.



Together, the oil and gas target areas overlap and form a **common target area**, as shown in the shaded portions below. Many companies prefer to drill the common target area if there is a chance to encounter both oil and gas.





There are many areas in Alberta where spacing units and target areas vary from the norm. These include:

- parts of eastern Alberta where spacing units allow four gas wells per section
- older oil fields in which several different patterns may have been used
- heavy oil areas in eastern Alberta where there may be four, eight, or more wells in each quarter section.

Drilling a well outside the target area may result in the company being penalized by the EUB. The penalty is reduced production from the well.

If you disagree with a proposed well location, you should ask the company representative to sketch the spacing unit and target area for the well. This will help you determine if there is flexibility for moving the well site. You should ask the company if it has looked into changing the target area or directionally drilling the well from a different surface location. (Directional drilling means drilling the well diagonally instead of vertically.)

Geological considerations

Geologic and seismic data are important in choosing the well site

The company will normally select a well location based on the geology of nearby wells or on seismic information. Some of the company's information may be confidential. However, the company should give you basic geologic information so that you know what restrictions there may be on moving the well.

Moving away from the best geologic location could increase the risk of drilling a dry hole or recovering less oil or gas.

Consider directional drilling

If you are having difficulty agreeing on a site, directional drilling could be a solution

Sometimes, landowners have a preferred well location outside of the target area or away from the best geologic point. In this case, you can suggest that the well be directionally drilled to the bottom hole target.

While a directional well may be technically possible in a number of situations, it increases the cost of drilling and producing the well. The increased costs and benefits of a directional well must be weighed against the impacts of a vertically-drilled well. You may want to ask

the company to estimate the additional costs for a directional well in relation to the value of anticipated production from the well.

Directional drilling technology has improved in recent years. It is now fairly routine in some areas of the province to drill several directional wells from the same surface location and thus reduce surface impacts. This practice is prevalent in areas where spacing is greater than one well per legal subdivision.

Land use considerations

Before agreeing to a well site, consider how it may affect your present and future land uses

Potential impacts on present and future land uses are important to consider when selecting well and access road locations. The company must have regard for any negative affect on land use, your lifestyle, the environment, and other people. For example, a location on unproductive land such as a slough or hillside may seem like a good choice, but the company must consider environmental impacts and the ability to reclaim the site. Such impacts could prevent the use of a site that is otherwise favourable to you and the company.

Domestic water wells

Ensuring that domestic water wells are safe is a priority

Protection of fresh water supplies is a major concern of landowners, the EUB, and oil and gas companies. The EUB ensures that all drilling, casing, cementing, and abandonment programs for oil and gas wells are designed to protect usable water zones.

Be sure to tell the company the location and depth of all water wells on your property. It is reasonable to request the company to test your water well(s) before and after the drilling of the oil or gas well. These tests provide baseline information that can be compared to future conditions in the water wells.

Other site restrictions

Other restrictions that may influence a well site location

A well is normally not permitted within 100 metres (328 feet) of an occupied dwelling or other surface improvement without the approval or consent of the owner. Restrictions may also apply to well sites close to cities, towns, villages, rural subdivisions, campgrounds, lakes and rivers, or public buildings such as schools and airports.

A well may not be drilled closer than 40 metres (131 feet) from a surveyed road or 100 metres (328 feet) from a numbered highway without the approval of the EUB and consent of the administrative authority concerned. That authority is generally the county,

municipality, or Alberta Transportation and Utilities.

PART 3: What Happens during Negotiations

After you begin negotiations with the company, various situations may arise. You and the company may agree or disagree about the site of the well and related facilities. You may agree or disagree about the compensation you should receive.

Open negotiations usually result in an agreement that meets the needs of both parties. The EUB encourages a negotiated agreement and recommends that all commitments be confirmed in writing. If both parties live up to their commitments, a good working relationship can be maintained for the life of the well.

Case 1: If both parties agree on the site

If you and the company agree about the location of the well site and access road, the company applies to the EUB for a licence to drill the well. If the application meets all legal and technical requirements, the EUB grants the licence.

NOTE: The well licence alone does not give the company the right to enter your land. (See [case 3, below](#)).

Case 2: If you disagree on the site

If you and the company cannot agree on the site for the well and the location of the access road, either party may ask the EUB for its involvement. The EUB will require documentation on the progress of previous negotiations and why an agreement could not be reached.

The EUB may suggest these options:

- the two parties should attempt negotiations again,
 - the EUB should become involved as a mediator,
 - the EUB should hold a public hearing.
-

The EUB public hearing process

An EUB public hearing provides an opportunity for different points of view to be heard in an orderly forum. In hearings, supporting evidence from registered parties must be submitted in advance and then presented. This formal process ensures that all relevant arguments, for and against, are heard.

At a hearing, each party presents its evidence and argument, and has the opportunity to ask questions of each other. Then, the EUB assesses the application and weighs the evidence. The EUB will make one of three decisions:

1. to issue a well licence unconditionally
2. to issue a licence subject to certain conditions
3. to deny the licence.

More information about the hearing process can be found in the list of EUB publications at the back of this pamphlet.

Case 3: If you disagree on compensation

Agreements about compensation are best reached between you and the company.

If you and the company cannot agree on compensation, the Surface Rights Board (SRB), not the EUB, will arbitrate the amount of compensation to be paid. The company must first obtain a well licence from the EUB. It then applies to the SRB for a right-of-entry order. The order allows company representatives to enter your land and drill the well. The SRB will then conduct a hearing to determine the compensation to be paid for the well site.

PART 4: What Happens after Drilling?

If the well is unsuccessful

If a well is a dry hole, the company would likely abandon it and reclaim the site. Before the company surrenders the surface lease, it must obtain a reclamation certificate from the Conservation and Reclamation Review Branch (CRRB) of the Department of Environmental Protection. The reclamation certificate would be issued only after the CRRB is satisfied that the site has been properly reclaimed.

If drilling finds worthwhile quantities of oil or gas

If a well is successful, surface equipment is required to produce the oil or gas from the well. A wellhead or pump will be required on oil wells, a heater may be necessary for gas wells. Other equipment such as pressure vessels and tanks may be placed on the well site where it causes the least interference with farming operations; for example between the well and a nearby fenceline. In some cases, pressure vessels and tanks may be located at another well site and well fluids piped there. You may wish to discuss these options with the company when you negotiate the well site.

Production facilities such as separators, heaters, and tanks make up a battery. The company must discuss the location and details of production facilities with you and any land occupants. You have the right to ask questions about these production facilities. You also have the opportunity to voice concerns or objections to the construction of production facilities, even if a well site exists. If you feel you are not getting answers, please call the EUB.

USEFUL REFERENCES

The following are available from the EUB's Information Services Section at (403) 297-8190*:

1. Enerfacts # 1, *What is the Alberta Energy and Utilities Board?*
 2. Enerfacts # 2, *Having Your Say at an EUB Hearing*
 3. Enerfacts #3, *Inspections and Enforcement in Petroleum Development in Alberta*
 4. *Hearings and Inquiries*, Guide 29
 5. *Pipelines and Surface Rights*, Guide 17-3
 6. *Guidelines Respecting Applications for Local Interveners' Costs Awards*, Guide 31
 7. *Negotiating Surface Rights*, Alberta Agriculture Farmers' Advocate
-

OTHER AGENCIES TO HELP YOU

SURFACE RIGHTS BOARD (SRB)

For more information about right-of-entry order compensation, contact the SRB in Edmonton:
18th Floor, 10020 - 101A Avenue
EDMONTON, Alberta T5J 3G2
Telephone: (403) 427-2444*

THE FARMERS' ADVOCATE

For advice on resolving land-related problems contact the Farmers' Advocate in Edmonton:
Room 305, 7000 - 113 Street
EDMONTON, Alberta T6H 5T6
Telephone: (403) 427-2434*

CONSERVATION AND RECLAMATION REVIEW BRANCH OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (CRRB)

The CRRB has statutory powers to require measures to be taken for soil preservation, for weed control, and for proper clean-up of well sites. You may contact them at:
3rd Floor, 9820 - 106 Street
EDMONTON, Alberta T5K 2J6
Telephone: (403) 427-636*

THE REGISTRAR OF LAND AGENTS

The registrar has statutory powers to regulate the conduct of land agents employed in the acquisition of land. If you have any concerns about the treatment you have experienced, contact the registrar at:
5th Floor, South Tower
9915 - 108 Street
EDMONTON, Alberta T5K 2G8
Telephone: (403) 427-6584*

HYDROGEOLOGY BRANCH

The Hydrogeology Branch investigates complaints respecting possible contamination of water wells.
Hydrogeology Branch
Alberta Environment
14th Floor, 10405 Jasper Avenue

EDMONTON, Alberta T5J 3N4
Telephone: (403) 427-6230*

EUB CONTACTS AND AREA OFFICES

Alberta Energy and Utilities Board - Head Office

Facilities Division

Telephone: (403) 297-4369

or

General Inquiries

Telephone: (403) 297-8311

640 - 5 Avenue SW

CALGARY, Alberta

T2P 3G4

EUB Area Offices

Bonnyville

Telephone: (403) 826-5352

Box 5169

49 Street & 50 Avenue

Bonnyville, Alberta

T9N 2G4

Grande Prairie

Telephone: (403) 538-5138*

#200, 11209 - 98 Avenue

Grande Prairie, Alberta

T8V 5A5

Calgary

Telephone: (403) 297-8303*

640 - 5 Avenue SW

Calgary, Alberta

T2P 3G4

Medicine Hat

Telephone: (403) 527-3385*

#302, 346 - 3 Street SE

Medicine Hat, Alberta

T1A 0G7

Drayton Valley

Telephone: (403) 542-5182

Box 7048

2nd Floor

5136 - 51 Avenue

Drayton Valley, Alberta

T0E 0M0

Red Deer

Telephone: (403) 340-5454*

2nd Floor, 4920 - 51 Street

Red Deer, Alberta

T4N 6K8

Edmonton

Telephone: (403) 460-3800*

30 Sir Winston Churchill Avenue

St. Albert, Alberta

T8N 3A3

Wainwright

Telephone: (403) 842-7570*

801 - 2 Avenue

Wainwright, Alberta

T0B 4P0

* To call toll-free, dial 310-0000 and ask the RITE operator to connect you to this number.

Return to [top of document](#)